Appl. No. 09/998,904
Amdt. dated Aug 13, 2004
Reply to Notice of Office Action of Feb. 13, 2004

Amendments to the Specification:

Please add the following new paragraphs between paragraphs [0070] and [0071]:

[0070.1] Further disclosed herein is a method for creating a polymorphism predictiveness value for use in a mutation predictiveness matrix. The method comprises the steps of calculating the mutation frequency from a first codon to a second codon in a dataset of two or more mutant genes and determining a polymorphism predictiveness value from the calculated mutation frequency.

[0070.2] Further embodiments include a method of creating a polymorphism predictiveness value may further comprise the step of generating a codon polymorphism predictiveness matrix that correlates the frequency of a first to a second codon mutation with the polymorphism predictiveness value. In certain embodiments, the codon polymorphism predictiveness matrix is normalized for the codon usage of a target organism.

[0070.3] Another embodiment includes a method for creating a variation predictiveness matrix, comprising the steps of calculating the variation frequency from a first nucleic acid to a second nucleic acid in a dataset of two or more variations, determining a variation predictiveness value from the calculated variation frequency, and generating a variation predictiveness matrix that correlates the frequency of a first to a second nucleic acid with the variation predictiveness value.

[0070.4] Certain embodiments include a method for creating a polymorphism predictiveness matrix. The method comprises the steps of calculating the mutation frequency from a first codon to a second codon in a dataset of two or more mutant genes; determining a polymorphism predictiveness value from the calculated mutation frequency, and generating a codon polymorphism predictiveness matrix that correlates the frequency of a first to a second codon mutation with the polymorphism predictiveness value.